ABSTRACT OF THE DISCLOSURE

A power control system and method for a wireless telephone employs an open loop technique for relatively low power levels and a closed loop technique at higher power levels. In the open loop technique, a wireless telephone (104, 106,

5 108) stores a phasing table of automatic power control (APC) values for the power levels (which are used to control upconverter gain levels measured at different channels. In operation, a power controller (322) reads the power level and reads the APC value in the table. Another table stores the APC value for one power level as the channel and temperature are varied. This value is interpolated, as needed,

10 during operation. The APC value for the open loop approach is determined by reading the input channel; finding the closest higher and closest lower channels in the temperature-channel table; interpolating between APC values for the temperature column of the closest lower temperature, to get the actual value. The difference between this value and the APC value for the actual power level in the

15 phasing table is then obtained.